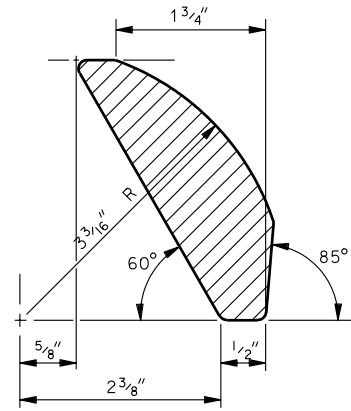
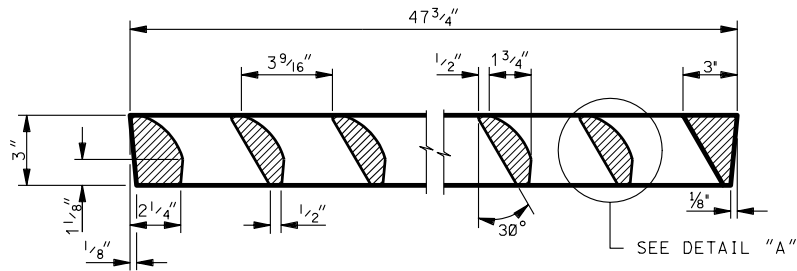


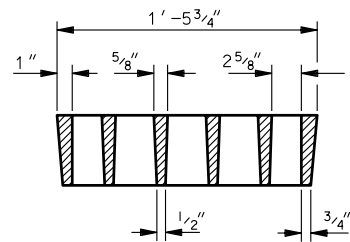
GRATE  
WEIGHT: 266 LBS



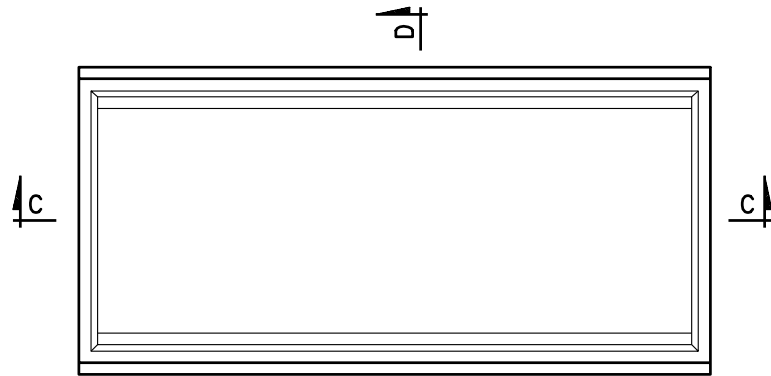
DETAIL "A"



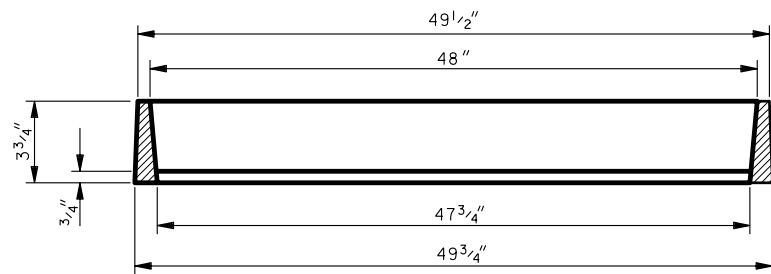
SECTION A-A



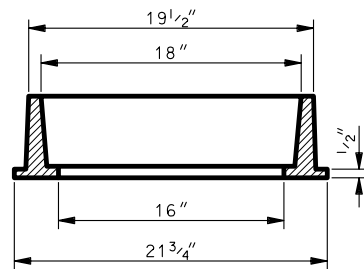
SECTION B-B



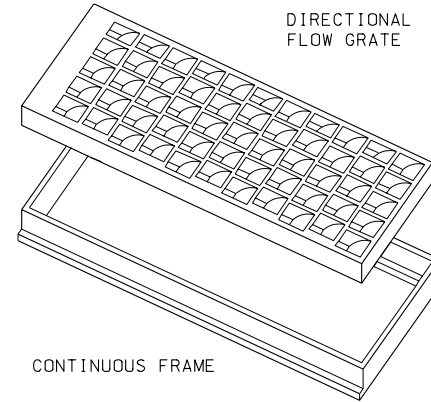
FRAME  
WEIGHT: 160 LBS



SECTION C-C



SECTION D-D



NOTES:

1. FURNISH GRATE AND FRAME IN EITHER DUCTILE IRON ( ASTM A 536 GRADE 60) OR CAST GRAY IRON: AASHTO M 105, CLASS 30B (ASTM A 48).
2. INSTALLATION REQUIRES SUPPORT UNDER LONGITUDINAL AXIS OF FRAME, ORIENT GRADE WITH DIRECTION OF FLOW.

DESIGN DATA

MS 18 ( HS-20 ) OR INTERSTATE ALTERNATE LOADING IN ACCORDANCE WITH CURRENT AASTO AND INTERIM SPECIFICATIONS.

DUCTILE IRON AND STRUCTURAL STEEL:  $f_s = 20,000$  psi

UTAH DEPARTMENT OF TRANSPORTATION  
STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION  
SALT LAKE CITY, UTAH

RECOMMENDED FOR APPROVAL  
CHAIRMAN STANDARDS COMMITTEE  
APPROVED  
DEPUTY DIRECTOR  
JULY 03,2002  
DATE  
JULY 03,2002  
DATE

DIRECTIONAL FLOW  
GRATE & FRAME

STANDARD DRAWING TITLE

STD DWG  
GF 4